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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/990,094	11/21/2001	Masahiro Kuroiwa	9319S-000258	1286

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EXAMINER

NGUYEN, TUNG X

ART UNIT PAPER NUMBER

2829

DATE MAILED: 02/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,094

Applicant(s)

KUROIWA, MASAHIRO

Examiner

Tung X Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 8-13, 15-18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) 5, 7, 14 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, are rejected under 35 U.S.C. 102(b) as being anticipated by Urano et al. (u.s.p 5,621,334).

As to claim 1, Urano et al. disclose in Fig. 1, a liquid-crystal-panel evaluating method for optically evaluating a liquid crystal panel comprising steps: making polarized light (via step 3) in a predetermined state be incident upon the liquid crystal panel (see col. 2, lines 6-17); increasing a ratio of polarized component of specularly reflected light, formed as a result of reflection of the incident light, transmitted through a liquid crystal layer of the liquid crystal panel to from detection light in order to evaluate the panel based on the detection light (col. 3, lines 1-6, col. 3, lines 26-34, and col. 4, lines 12-28).

As to claims 2-3, Urano et al. disclose in column 3, lines 32-34, a liquid-crystal-panel evaluating method wherein the liquid crystal panel further comprises a reflective liquid crystal panel.

Claim Rejections - 35 USC § 103

3. Claims 4, 6, 8-13, 15-18, 20-22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose (u.s.p 6,151,116), in view of Urano et al. (u.s.p 5,621,334).

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As to claims 4, 6, 8-12, 15-18, 20-22 Hirosawa discloses in Fig. 1, a evaluating device comprising: polarizing illumination means (5) for illuminating the device under test (9) with polarized light in predetermined state (rays through the element 5); detection light obtaining means (8) for receiving specularly reflected light sent forth from the from the DUT and increasing a ratio of a polarized component of the specularly reflected light (via 4) transmitted through a DUT in order to obtain detection light; and light detecting means (7, 8) for detecting the detection light. Hirosawa does not teach or suggest the DUT is a liquid crystal panel. However, Urano et al. disclose (see the abstract, and col. 1, lines 50-60) a system wherein the DUT is liquid crystal panel. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Hirosawa, and provide the liquid crystal panel, as taught by Urano et al. in order to evaluating the thickness and impurity of the DUT.

As to claim 13, Hirosawa discloses in Fig. 1, the evaluating device wherein the polarizing illumination means (4, 5) comprises a light source (4) and polarizing means (5) for obtaining the polarized light from the light emitted from the light source (4).

4. The method is considered inherent in the structure.

Allowable Subject Matter

5. Claims 5, 7, 14, 19, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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6. The following is a statement of reasons for the indication of allowable subject matter:

As to claim 5, the prior arts do not teach or suggest the liquid crystal panel evaluating steps wherein the detection light primarily comprises a polarized component including a second vibration plane that is virtually orthogonal to the first vibration plane, the polarized component including the second vibration plane extracted from the specularly reflected light; in combination with the other claims elements.

As to claim 7, the prior arts do not teach or suggest the liquid crystal panel evaluating steps further comprising: disposing reflecting means at a back side of the liquid crystal layer, and wherein the linearly polarized light including the first vibration plane is made to be incident upon the liquid crystal panel from a front side of the liquid crystal layer; in combination with the other claimed elements.

As to claims 14, 19, the prior arts do not teach or suggest the liquid crystal panel evaluating device comprising: a polarized-light polarization axis of the polarizing means and a polarized-light absorption axis of the detection light obtaining means are substantially orthogonal to each other with reference to an optical axis; in combination with the other claimed elements.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X Nguyen whose telephone number is (703) 305-3337. The examiner can normally be reached on 8:30am-5:00pm M-F.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (703)-308-1233. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-5841 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

TN

February 5, 2003


KAMAND CUNEO
SUPERVISORY PATENT EXAMINER
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